

DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-017046**Date Inspected:** 14-Sep-2010**Project Name:** SAS Superstructure**OSM Arrival Time:** 1500**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 300**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Wang Jie**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** OBG**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Umesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

TRIAL ASSEMBLY YARD, 10AE+10BE, HOLD BACK (NWIT # 06670)

This QA inspector performed Magnetic Particle Testing (MT) of approximately 15% of an area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This QA Inspector has generated MT report for this date. The member(s) are identified as OBG components. The weld designations reviewed are as follows:

EP167-001-009

EP167-001-010 (MT LINEAR INDICATION OBSERVED)

EP168-001-005, 006

DP714-001-015, 016

DP715-001-009, 010

SP711-001-023, 024

SP712-001-013, 014

SP323-001-029, 030

SP324-001-001, 002

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SP350-001-035, 036
SP351-001-011, 012
SP377-001-033, 034
SP378-001-009, 010

This Quality Assurance (QA) Inspector observed the following work in progress:

BAY 14, 13AE-BP3032-001

During random in process inspection this QA inspector observed that ZPMC NDT personnel Mr. Xie Fen Lin was performing Magnetic Particle Testing (MT) on the temporary attachment removed area of base metal of BP3032-001 (PL3220C & PL 3221C). The members are identified as OBG components.

BAY 16, Bottom Plate

SAW welding of weld joint 003 located on BP3101-001.

Welder is identified as 201917. ZPMC QC is identified as Mr. Li Ming Yang.

The welding variables recorded by QC appeared to comply with WPS-B-T-2221-B-L2c-S-2.

SAW welding of weld joint 001 located on BP3095-001.

Welder is identified as 201917. ZPMC CWI is identified as Mr. Guo Pan.

The welding variables recorded by QC appeared to comply with WPS-B-T-2221-B-L2c-S-2.

During random in process inspection this QA inspector observed that ZPMC personnel performing fit up by using Shielded Metal Arc Welding (SMAW) process for steel barrier W5-SB1-005-128/129. Welder is identified as 201905. ZPMC QC is identified as Mr. Li Ming Yang. The welding variables recorded by QC appeared to comply with WPS-B-T-2112.

During the Quality Assurance Magnetic Particle Testing (MT) review of hold back welds located on bike path side of OBG segment 10AE, this Quality Assurance (QA) Inspector discovered the following issues:

- One (1) longitudinal crack extended from the toe of the weld found on the weld measuring approximately 6mm in length.
- Y location of the indication is measured to be 200mm from cope hole.
- The weld is identified as: EP167-001-010.
- The Weld is a fillet weld joining the I-rib (RS89CA) to the edge plate (PL1403A).
- This weld is designated as Seismic Performance Critical Member (SPCM).
- The member is located in trial assembly yard.

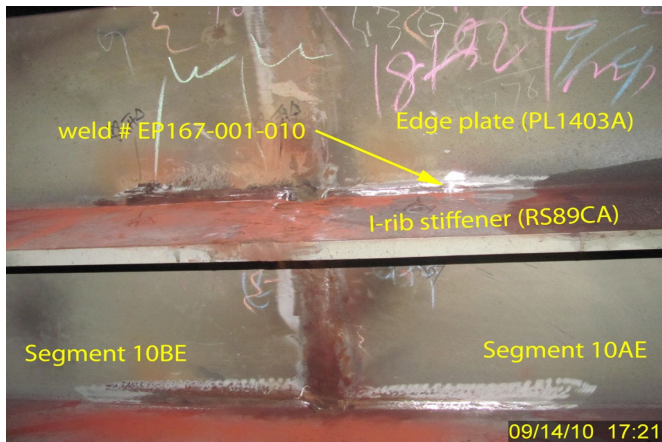
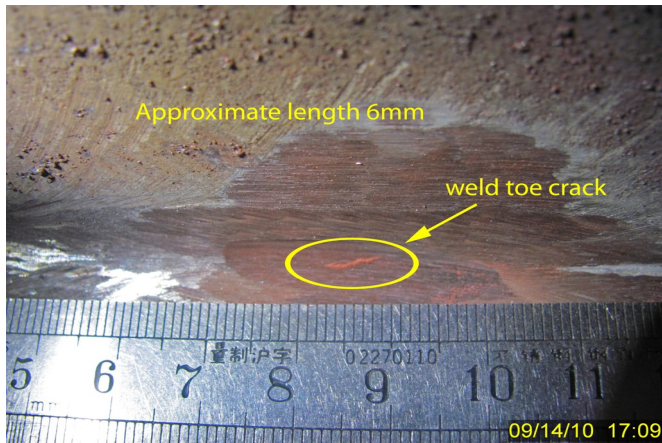
The Notice of Witness Inspection Number (NWIT) is 06670. The indication is located within the area that has been previously tested and accepted by ZPMC Quality Control (QC) personnel. This issue has an incident report. The attached photographs provide additional detail.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract

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documents.



Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang : 15000422372, who represents the Office of Structural Materials for your project.

Inspected By: Gaikwad,Umesh

Quality Assurance Inspector

Reviewed By: Carreon,Albert

QA Reviewer